

Pro longitudine Pekinensis Urbis observata sunt plures immersiones primi Jovis satellitis in Jovis Umbram ex quibus selegi quæ habita est die 18 Januarii, 1695. Telescopio pedum duodecim.

Eo die observata est immersio primi Jovis satellitis in Jovis Umbram facta correctione horologii h. 12. 51. 14.

Tabulæ nostræ eo die hanc immersionem representant h. 5. 18. 49. Observationes autem eodem mense habitæ in observatorio Regio Parisiensi ostendunt. Tabulas retardasse tunc temporis minutis horariis 2'. 30".

Quare fuit illa immersio Parisiis h. 5. 16. 19. Itaque differentia meridianorum.

Inter Pekinum & Urbem Parisensem erit h. 7. 34. 55.

Cum autem ex aliis observationibus olim deducta fuerit eadem meridianarum differentia 7'. 36. sumi poterit h. 7. 35 $\frac{1}{2}$.

V. A Letter from Dr. Geo. Garden, Dated Aberdeen, Dec. 8, 1686. concerning Caterpillars that destroy Fruit.

I Had Occasion some Years ago to discover the true Origine of the small Catterpillar, which infests the Blossoms of Pears and Apples, and destroys the Fruit. You know the vulgar Conceit was, their being bred of Mists and Dews, which *Goedartius* goes along with, but *Dr. Lister* rightly Conjectures their Original to be from the Butter-fly, into which they are transformed, though he seems not to have taken Notice of the particular manner of their Propagation, as may be seen in *Numb. 60.* of his Edition of *Goedartius*. The Bearers of these Trees you know are full of Asperities, and not so smooth

smooth in their Bark as the other parts of the Tree. If after the Harvest and any time all the Winter over, you look upon these Bearers through an ordinary Microscope, you will find the Cavities there full of Eggs of an oblong Figure, and Citron Colour, especially in those Years and Trees wherein the Caterpillars have been numerous, out of these they are hatcht in the Spring. The Seasons which usually destroy them are, when there comes an early Heat, such as is sufficient to hatch them before the coming forth of the Buds and Blossoms, and when immediately there succeeds a nipping frosty Air, which soon kills them. The Discovery of this Manner of their Propagation, seems to give Light to these Conjectures. 1. That we ought not to conclude that any Insects are bred of Corruption, and not *ex Ovo*, because we cannot discern the particular manner of their Propagation; for the Discovery of this, you see, is by Accident, and not discernible by the naked Eye. 2. That the Female Insects of all kinds of Flies and Butter-flies do probably put their Spaun near these Places, where the Erucas which are hatcht of them are to have their Food, so that they are to be searched for in such Places, by those who enquire into the Manner of their Propagation. 3. They seem to be fixed into the Cavities of the Bearers by a Gluten, so as that Rains do not wash them off. 4. The greatest Frosts, it seems, do no hurt to the small Eggs of Insects, for I have seen the Caterpillars hatch, after most Cold and Frosty Winters, of those Eggs which I have observed on the Bearers all the Winter over.